UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,665	09/05/2003	Johannes Kocher	16493	8316

50659 7590 02/08/2006

BUTZEL LONG
DOCKETING DEPARTMENT
100 BLOOMFIELD HILLS PARKWAY
SUITE 200
BLOOMFIELD HILLS, MI 48304

EXAMINER	
PICO, ERIC E	
ART UNIT	**PAPER NUMBER**
3654	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/656,665	KOCHER ET AL.	
	Examiner	Art Unit	
	Eric Pico	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *17-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim(s) 1, 2, 8-12, 13 is/are rejected under 35 U.S.C. 102(e) as being anticipated by Nakagaki et al. U.S. Patent No. 6598707.

3. **Regarding claim 1**, Nakagaki et al. discloses an elevator installation having a car, referred to as cage 20, and a counterweight 30 connected by a drive means, referred to as front and back hoist cables 50, 60, and movable in a shaft 7 comprising a pair of car guides 22, 23 adapted to be mounted in the shaft 7, a pair of counterweight guides 31, 32 adapted to be mounted in the shaft, a crossbeam, referred to as connecting beam 33, attached to the counterweight guides 31, 32 and to car guide 22, and a drive motor, referred to as hoist 41, mounted on the crossbeam 33 and coupled to a pair of drive pulleys, referred to as front and back traction sheaves 44, 45, adapted for engaging the drive means 50, 60 to move the car 20 and the counterweight 30 in the shaft.

4. **Regarding claim 2**, Nakagaki et al. further discloses the drive pulleys 44, 45 are arranged on opposite sides of an imaginary line horizontal connector of the car guides 22, 23.

5. **Regarding claim 8**, Nakagaki et al. further discloses the counterweight guides 31, 32 and the car guide 22 are positioned at apices of a substantially horizontal triangle and the crossbeam 33 is fastened at end regions to the counterweight guides 31, 32 and at a center region to the car guide 22.

6. **Regarding claim 9**, Nakagaki et al. further discloses the car guides 22, 23 and counterweight guides 31, 32 are arranged to extend substantially vertically in the shaft and the crossbeam 33 is arranged to extend substantially horizontally in the shaft.

7. **Regarding claim 10**, Nakagaki et al. further discloses an elevator installation having a car, referred to as cage 20, and a counterweight 30 connected by a drive means, referred to as front and back hoist cables 50, 60, and movable in a shaft comprising an elevator shaft 7, an elevator car 30 movable in the shaft 7 along a pair of car guides 22, 23 mounted in the shaft 7, a counterweight 30 movable in the shaft 7 along a pair of counterweight guides 31, 32 mounted in the shaft 7, a crossbeam, referred to as connecting beam 33, attached to the counterweight guides 31, 32 and one of the car guides 22, and a gearless drive motor, referred to as hoist 41, mounted on the crossbeam 33 for engaging the drive means 50, 60 and moving the car 20 and the counterweight 30 in the shaft 7.

8. **Regarding claim 11**, Nakagaki et al. further discloses two drive means 50, 60 connecting the car 20 and the counterweight 30, each drive means 50, 60 having two

ends, referred to as anchoring ends 53, 57, 63, 67, and each of the ends 53, 57, 63, 67 being fixed to one of the car guides 23, via cage-side hitching beam 25, and the crossbeam 33.

9. **Regarding claim 12**, Nakagaki et al. further discloses two drive means 50, 60 connecting the car 20 and the counterweight 30 and wherein the drive means 50, 60 are belts.

10. **Regarding claim 13**, Nakagaki et al. further discloses the car 20 is suspended in the shaft 7 with a 2:1 ratio and the drive motor 41 is arranged in a region above a travel path of the counterweight 30 in the shaft 7, shown in Figures 1, 2, 4, and 5.

11. Claim(s) 1, 3, 5, 6, 9, 10-12, 16 is/are rejected under 35 U.S.C. 102(e) as being anticipated by Yasuda et al. U.S. Patent No. 6488124.

12. **Regarding claim 1**, Yasuda et al. discloses an elevator installation having a car 101 and a counterweight 102 connected by a drive means, referred to as ropes 111, and movable in a shaft 103 comprising a pair of car guides 104 adapted to be mounted in the shaft 103 a pair of counterweight guides 105 adapted to be mounted in the shaft 7, a crossbeam, referred to as support beam 108, attached to the counterweight guides 105, via connecting beams 106, and to the car guides 104, via connecting beam 106, and a drive motor 126 mounted on the crossbeam 108 and coupled to a pair of drive pulleys, referred to as driving traction sheaves 110, adapted for engaging the drive means 111 to move the car 101 and the counterweight 102 in the shaft 103.

13. **Regarding claim 3**, Yasuda et al. further discloses the drive pulleys 110 are operatively connected by a shaft, referred to as output shaft 125,with the drive motor 126 and a brake 118.

14. **Regarding claim 5**, Yasuda et al. further discloses the drive motor 126 and the brake 118 are mounted on a bracket, referred to as support legs 120, fastened to the crossbeam 108

15. **Regarding claim 6**, Yasuda et al. further discloses the bracket 120 is mounted at a center region of the crossbeam 108.

16. **Regarding claim 9**, Yasuda et al. further discloses the car guides 104 and counterweight guides 102 are arranged to extend substantially vertically in the shaft 103 and the crossbeam 108 is arranged to extend substantially horizontally in the shaft 103.

17. **Regarding claim 10**, Yasuda et al. further discloses an elevator installation having a car 101 and a counterweight 102 connected by a drive means, referred to as ropes 111, and movable in a shaft 103 comprising an elevator shaft 103, an elevator car 101 movable in the shaft 103 along a pair of car guides 104 mounted in the shaft 103, a counterweight 102 movable in the shaft 103 along a pair of counterweight guides 105 mounted in the shaft 103, a crossbeam, referred to as a support beam 108, attached to the counterweight guides 105, via connecting beams 106, and to the car guides 104, via connecting beams 106, and a gearless drive motor 126 mounted on the crossbeam 108 for engaging the drive means 111 and moving the car 101 and the counterweight 102 in the shaft 103.

18. **Regarding claim 11**, Yasuda et al. further discloses two drive means 111 connecting the car 101 and the counterweight 102, each drive means 111 having two ends and each of the ends being fixed to the counterweight 102, via rope hitch 112, and the car 101, via rope hitch 113.

19. **Regarding claim 12**, Yasuda et al. further discloses two drive means 111 connecting the car 101 and the counterweight 102 and wherein the drive means 111 are belts.

20. **Regarding claim 16**, Yasuda et al. further discloses the car 101 is suspended in the shaft 103 with a 1:1 ratio and the drive motor 126 is arranged in a region above a travel path of the car 101, shown in Figures 4-6 20, 21A, 21B, and 31-33.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. Claim(s) 4 and 7 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. U.S. Patent No. 6488124 in view of Cox U.S. Patent No. 3559768.

23. **Regarding claim 4**, Yasuda et al. discloses drive pulleys 110, a drive motor 126 and a brake 118.

24. Yasuda et al. is silent concerning the drive pulleys arranged between a drive motor and a brake.

25. Cox teaches drive pulleys, referred to as traction sheaves 11, 25, arranged between a drive motor, referred to as an electric motor 14, and a brake 15.

26. It would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the pulleys disclosed by Yasuda et al. between a drive motor and a brake as taught by Cox to equally distribute the load on the shaft between the drive motor, drive pulleys, and the brake.

27. **Regarding claim 7**, Yasuda et al. discloses drive pulleys 110 and brackets 120.

28. Yasuda et al. is silent concerning the drive pulleys arranged substantially in a region within an enclosure of the bracket.

29. Cox teaches drive pulleys 11, 25 arranged substantially in a region within an enclosure of the brackets, not numbered but shown attached to of the elevator shaft shown in Figure 1.

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the drive pulleys disclosed by Yasuda et al. substantially in a region within an enclosure of the bracket to make the drive pulleys readily accessible with the bracket.

31. Claim(s) 14 and 15 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagaki et al. U.S. Patent No. 6598707 in view of Yasuda et al. U.S. Patent No. 6488124.

32. **Regarding claim 14**, Nakagaki et al. discloses a car 20 suspended in a shaft 7 with a 2:1 ratio and a drive motor 41.

33. Nakagaki et al. is silent concerning a drive motor arranged in a region above a travel path of the car.

34. Yasuda et al. teaches a car 101 suspended in a shaft 103 with a drive motor 126 arranged in a region above a travel path of the car 101, shown in Figures 4-6 20, 21A, 21B, and 31-33.

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the drive motor disclosed by Nakagaki et al. in a region above a travel path of a car as taught by Yasuda et al. to overcome elevator shaft size and shape constraints.

36. **Regarding claim 15**, Nakagaki et al. discloses a car 20 suspended in a shaft 7 with a 2:1 ratio and a drive motor 41.

37. Nakagaki et al. is silent concerning a drive motor arranged in a region above a travel path of the car and a travel path of the counterweight.

38. Yasuda et al. teaches a car 101 suspended in a shaft 103 with a drive motor 126 arranged in a region above a travel path of the car 101 and a travel path of the counterweight 102, shown in Figures 4-6 20, 21A, 21B, and 31-33.

39. It would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the drive motor disclosed by Nakagaki et al. in a region above a travel path of a car and a travel path of a counterweight as taught by Yasuda et al. to overcome elevator shaft size and shape constraints.

Response to Arguments

40. Applicant's arguments, see Applicant's Response Pages 12 and 13, filed 11/23/2005, with respect to the rejection(s) of claim(s) 1-6 under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 102(e) as being anticipated by Nakagaki et al. U.S. Patent No. 6598707, 35 U.S.C. 102(e) as being anticipated by Yasuda et al. U.S. Patent No. 6488124, 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. U.S. Patent No. 6488124 in view of Cox U.S. Patent No. 3559768, and 35 U.S.C. 103(a) as being unpatentable over Nakagaki et al. U.S. Patent No. 6598707 in view of Yasuda et al. U.S. Patent No. 6488124.

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakagaki et al. JP Publication No. 2002-167137.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Pico whose telephone number is 571-272-5589. The examiner can normally be reached on 6:30AM - 3:00PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EEP

Kathy Matecki

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600